WHAT IS CLAIMED IS:

1. A disk drive comprising:

an optical head for emitting a laser beam so as to illuminate a disk-shaped storage medium thereby writing or reading data on or from the disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, pre-pits being formed on lands between adjacent grooves;

a push-pull signal generator for generating a push-pull signal from reflected-light information detected by the optical head;

a pre-pit detector for comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal; and

a noise remover for detecting a noise pulse on the basis of the pulse width of a pulse included in the detection signal output from the pre-pit detector, removing the noise pulse from the detection signal, and output the detection signal including no noise pulse.

2. A disk drive according to claim 1, wherein

the disk-shaped storage medium represents, using the pre-pits, address information indicating an address on the disk; and

the disk drive further comprising an address decoder for acquiring the address information represented by the pre-pits, from the noise-removed detection signal.

3. A disk drive according to claim 1, wherein the noise remover includes a pulse width detector for detecting the pulse width of a pulse included in the detection signal output from the pre-pit detector, and wherein when a pulse with a pulse width smaller than a reference value is detected by the pulse width detector, the noise remover removes the detected pulse as a noise pulse.

4. A disk drive according to claim 3, wherein the noise remover is capable of changing the reference value of the pulse width.

5. A disk drive comprising:

an optical head for emitting a laser beam so as to illuminate a disk-shaped storage medium thereby writing or reading data on or from the disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, pre-pits being formed on lands between adjacent grooves;

a push-pull signal generator for generating a push-pull signal from reflected-light information detected by the

optical head;

a pre-pit detector for comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal;

a counter for counting the number of pulses included in the detection signal output from the pre-pit detector, for each of predetermined periodic intervals; and

a controller for changing the reference signal depending on the count value of the counter.

6. A disk drive according to claim 5, wherein

the disk-shaped storage medium represents, using the pre-pits, address information indicating an address on the disk; and

the disk drive further comprising an address decoder for acquiring the address information represented by the pre-pits, from the noise-removed detection signal.

7. A disk drive according to claim 5, wherein the controller controls the reference signal such that the level of the reference signal is reduced when the count value is greater than a predetermined value, while the level of the reference signal is increased when the count value is smaller than the predetermined value.

8. A disk drive comprising:

an optical head for emitting a laser beam so as to illuminate a disk-shaped storage medium thereby writing or reading data on or from the disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, pre-pits being formed on lands between adjacent grooves;

a push-pull signal generator for generating a push-pull signal from reflected-light information detected by the optical head;

a pre-pit detector for comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal;

a noise remover for detecting a noise pulse on the basis of the pulse width of a pulse included in the detection signal output from the pre-pit detector, removing the noise pulse from the detection signal, and output the detection signal including no noise pulse;

a counter for counting the number of pulses included in the detection signal output from the pre-pit detector or included in the detection signal output from the noise remover, for each of predetermined periodic intervals;

a controller for changing the reference signal depending on the count value of the counter; and

an address decoder for acquiring the address

information represented by the pre-pits, from the noise-removed detection signal.

9. A disk drive according to claim 8, wherein

the disk-shaped storage medium represents, using the pre-pits, address information indicating an address on the disk; and

the disk drive further comprising an address decoder for acquiring the address information represented by the pre-pits, from the noise-removed detection signal.

10. A disk drive according to claim 8, wherein the noise remover includes a pulse width detector for detecting the pulse width of a pulse included in the detection signal output from the pre-pit detector, and wherein when a pulse with a pulse width smaller than a predetermined value is detected by the pulse width detector, the noise remover removes the detected pulse as a noise pulse.

11. A disk drive according to claim 10, wherein the noise remover is capable of changing the reference value of the pulse width.

12. A disk drive according to claim 6, wherein the controller controls the reference signal such that the level

of the reference signal is reduced when the count value is greater than a predetermined value, while the level of the reference signal is increased when the count value is smaller than the predetermined value.

13. A method of detecting pre-pits formed on a disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, address information being represented by the pre-pits formed on lands between adjacent grooves, the method comprising the steps of:

generating a push-pull signal from reflected-light information obtained when the disk-shaped storage medium is illuminated with a laser beam;

comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal; and

detecting a noise pulse on the basis of the pulse width of a pulse included in the output detection signal, removing the detected noise pulse from the detection signal, and outputting the detection signal including no noise pulse.

14. A method of detecting pre-pits formed on a disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped

storage medium, address information being represented by the pre-pits formed on lands between adjacent grooves, the method comprising the steps of:

generating a push-pull signal from reflected-light information obtained when the disk-shaped storage medium is illuminated with a laser beam;

comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal;

counting the number of pulses included in the output detection signal, for each of predetermined periodic intervals; and

changing the reference signal depending on the count value.

15. A method of detecting pre-pits formed on a disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, address information being represented by the pre-pits formed on lands between adjacent grooves, the method comprising the steps of:

generating a push-pull signal from reflected-light information obtained when the disk-shaped storage medium is illuminated with a laser beam;

comparing the push-pull signal with a reference signal

and outputting a comparison result as a pre-pit detection signal;

detecting a noise pulse on the basis of the pulse width of a pulse included in the output detection signal, removing the detected noise pulse from the detection signal, and outputting the detection signal including no noise pulse;

counting the number of pulses included in the output detection signal, for each of predetermined periodic intervals; and

changing the reference signal depending on the count value.